Amendments to the claims

1. (Currently amended) A method of operating a network for transmission of data between users, and wherein said network includes at least one network processor and at least one coprocessor associated with said network processor, and wherein said data is passed to said network processor in data packets, said method comprising:

each of said network processors encapsulating the data in each packet into a data frame before transmission on the network, and wherein said network processor provides a header for the data in each data frame which includes all the information necessary to direct the coprocessor to perform all required operations on said data,

passing at least some data frames, including the header thereof, from said network processor to said coprocessor associated therewith before transmission on the network,

performing any operations required by the header in said coprocessor on said data before transmission on the network,

modifying said header information by said coprocessor after performing said required operations, ~~and~~

returning said data frame from said coprocessor to said network processor with said modified header, and

thereafter transmitting said data with said modified heading on said network.

2. (Original) The invention as defined in claim 1 wherein all data frames with said created headers are sent to the coprocessor associated with said network

processor and said coprocessor returns said data in the order it was received from the network processor.

3. (Original) The invention as defined in claim 1 wherein said network processor can receive data with the modified data header, passing said received data with the modified header to said coprocessor associated therewith, restoring the data from its modified form to its original form in the coprocessor and returning said stored data to the network processor.

4. (Currently amended) The invention as defined in claim 3 wherein there is at least two network processors on said network and each of said processors is configured to pass data with created headers therebetween.

5. (Currently amended) The invention as defined in claim ~~1~~ 2 wherein the information for generating said header is contained, at least in part, in said network processor.

6. (Currently amended) The invention as defined in claim ~~1~~ 3 wherein the information for generating said header is contained, at least in part, in said data packets.

7. (Currently amended) A network for transmission of data between users comprising:

a network processor and at least one coprocessor associated with said network processor, said data being passed to said network processor in data packets;

each of said network processors including programming which encapsulates the data in each packet into a data frame before transmission on said network, including a header for the data in each data frame, which header includes all the information necessary to direct the coprocessor to perform all required operations on said data and to pass at least some data frames, including the header thereof, from said network processor to said coprocessor associated therewith;

programming in said coprocessor to read and perform any operation required by the header on said data before transmission on the network,

programming in said coprocessor to modify said header information after performing said required operations on the data and to return said data frame from said coprocessor to said network processor with said modified header, and

thereafter transmitting said data with said modified heading on said network.

8. (Original) The invention as defined in claim 7 wherein said programming in said network processor will send all data frames with said created headers to the coprocessor associated with said network processor, and said programming in said coprocessor will return said data frames in the order they were received from the network processor.

9. (Original) The invention as defined in claim 7 wherein said programming in the network processor can receive data with the modified data header,

pass said received data with the modified header to said coprocessor associated therewith, and said programming in said coprocessor can restore the data from its modified form to its original form in the coprocessor and return said restored data to the network processor.

10. (Original) The invention as defined in claim 7 wherein there is at least two network processors and each of said processors is configured to pass data with created headers therebetween.

11. (Currently amended) The invention as defined in claim ~~7~~ 8 wherein the information for generating said header is contained, at least in part, in said network processor.

12. (Currently amended) The invention as defined in claim ~~7~~ 9 wherein the information for generating said header is contained, at least in part, in said data packets.